

a forum

to clear the air

Oct. 26, 2022



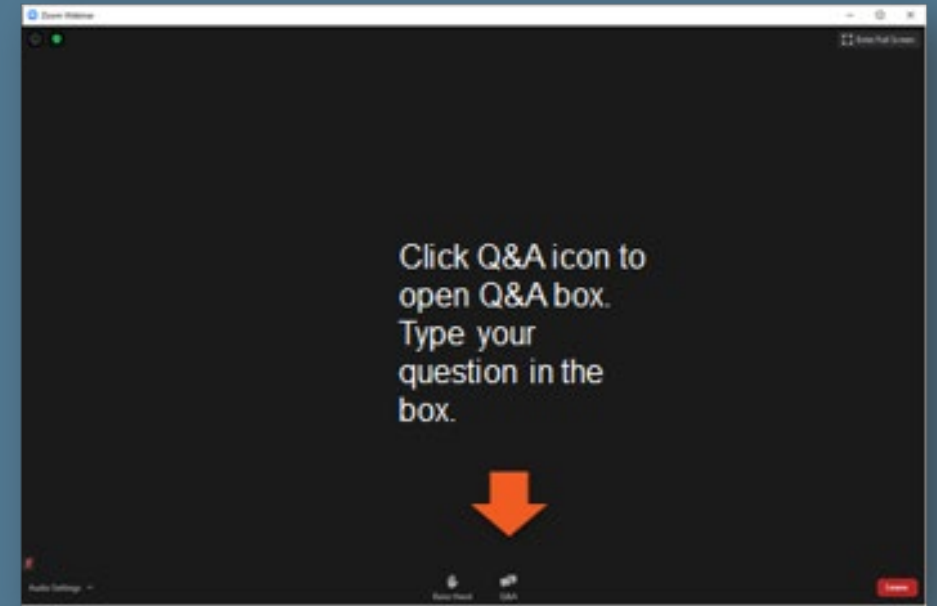
Agenda

- **Meet our presenters**
- **Road to Zero: join the charge!**
- **What SMUD's doing & why:** Our progress toward clean power
- **What you can do:** Your role in the 2030 Clean Energy Vision
- **Q & A**

Questions can be submitted in the chat.

We'll take questions at the end of tonight's presentation.

Although we may not have time to answer all questions, we'll respond to as many as possible via chat and live responses.





Crystal Richardson
Supervisor, Community
Engagement Events



Ed Hamzawi
Director, Advanced Energy
Solutions



Joyce Hribar
Manager, Zero Carbon
Project Management Office



Are you ready to join the charge?

CleanPowerCity.org



POLL:

Have you signed up to join the charge?

- YES!
- Not yet - send me the link!
- No, I want to learn more, first.



2030 Zero Carbon Plan

Powering forward.
Together.



Why?



SMUD & regional agencies recognize that we're facing a climate crisis and must act.

Rising temperatures have an adverse impact on the economy.



American Lung Association gives the region an “F” for air quality.*

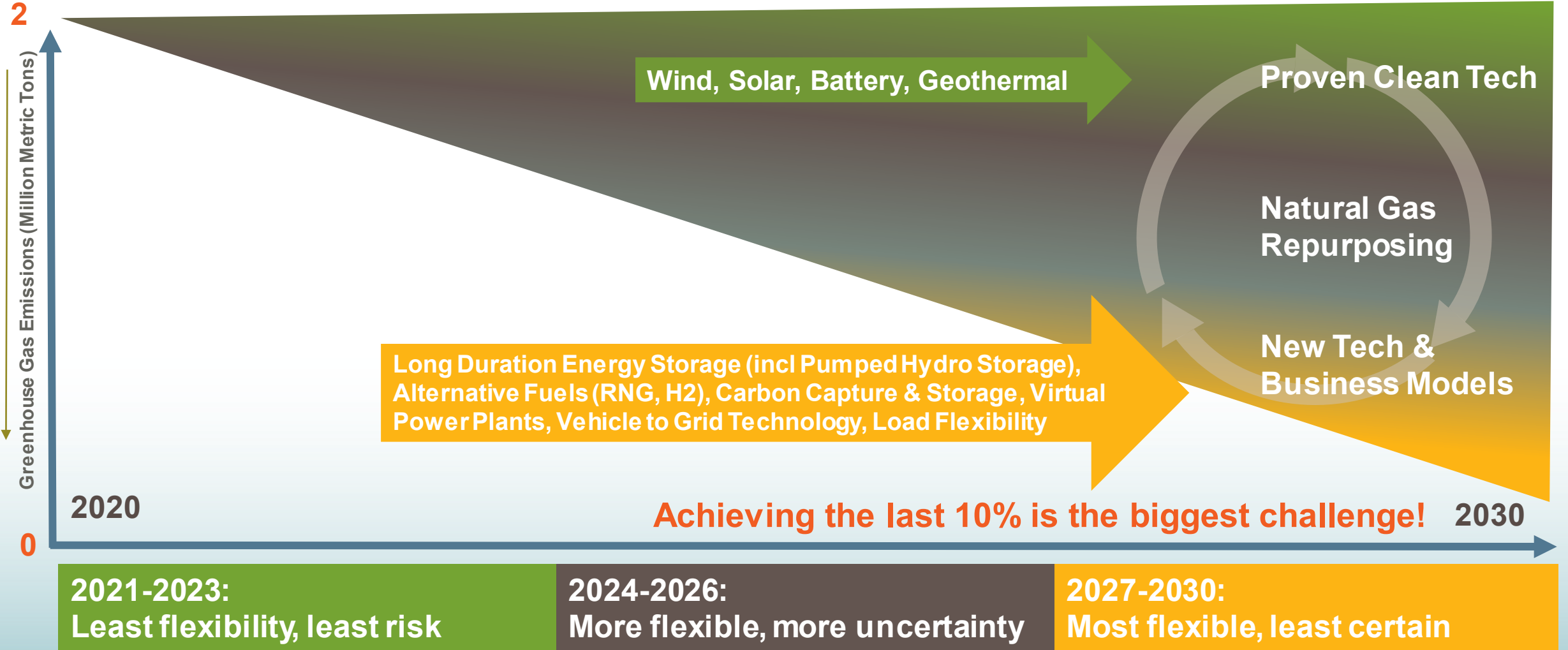
Local childhood asthma rates are about **22%** higher than the national average.**

*American Lung Association State of the Air Report, 2018-2020

**California Department of Public Health: <https://data.ca.gov/dataset/asthma-prevalence>

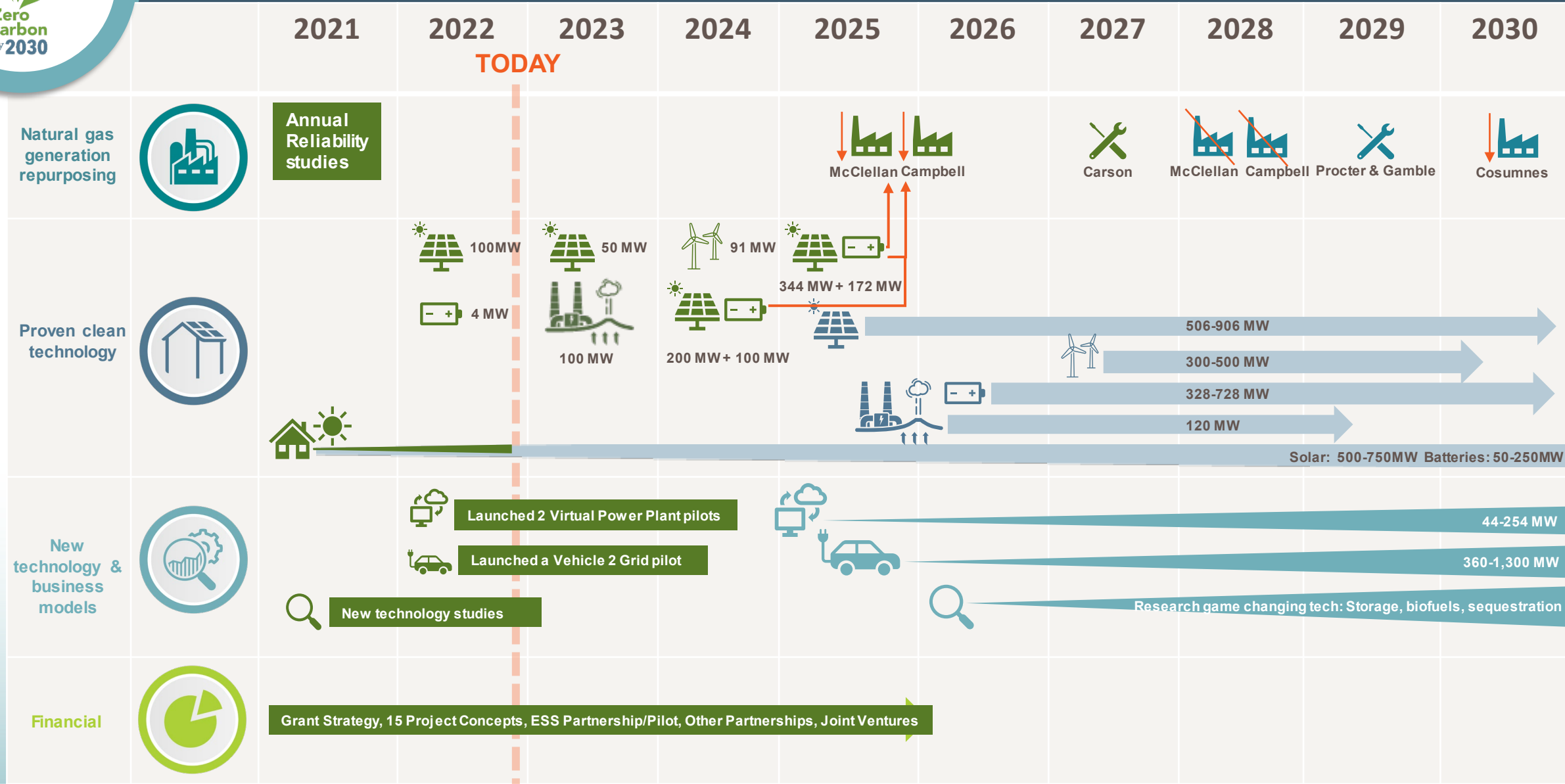


Flexible pathway, with dependencies





2030 Zero Carbon Plan – What we’re working toward





Our progress toward clean power

Powering forward.
Together.





2022 progress toward clean power

Renewable energy



704 MW solar & 91 MW wind through power purchase agreements

Geothermal planning



100 MW geothermal through contract with Calpine and The Geysers

Battery storage



276 MW battery storage

Long-term storage



200 MW potential long-duration energy storage through multi-year contract with ESS



Studies to ensure availability & reliability

- **Power plant studies:** (McClellan & Campbell) and Carson Conversion Plan
- **Long-duration energy storage:** Further examine 6 technologies and consider pilot project.
- **Deep dive analysis of UARP pump back hydro:** Report from Mesa Engineering.
- **Hydrogen:** ARCHES (CA's public-private hydrogen (H₂) hub consortium), participating in studies for effects of introducing H₂ into gas pipelines.





Grants & partnerships

Grant funding categories aligned with 2030 Zero Carbon Plan

Clean fuels	Carbon capture	Long-duration energy storage	Building electrification
Transportation electrification	Load flexibility / integrated approaches	Disadvantaged communities / under-resourced communities / equity	Grid resilience / climate / emergency prevention

- 8 categories established to identify funding opportunities.
- **83%** success rate.
- **8 grants received** so far in 6 of the funding categories.
- **Regional collaboration & partnerships** are critical to pursuing, winning and executing grants.
- **Shared cost arrangements** will help us pilot new technologies.



California Mobility Center – various mobility electrification & workforce training efforts

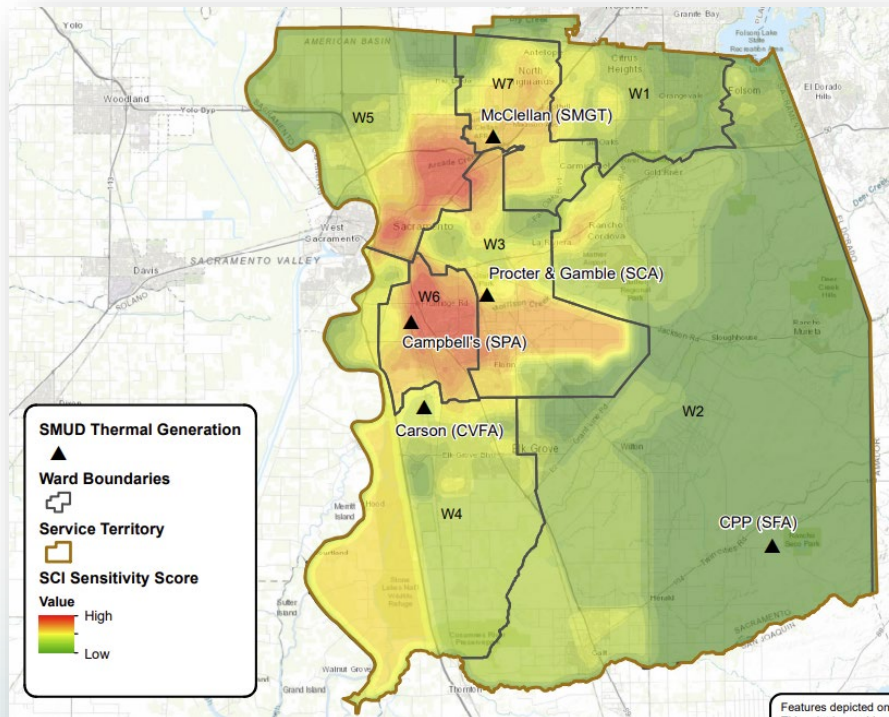


Electric school bus pilot testing vehicle to grid



First-of-its-kind collaboration to accelerate vehicle-to-everything technologies

Impact where it matters most



- **Community Impact Strategy** to outline what we'll do over the next few years to support specific under-resourced customer segments.
- **3 core areas:**
 - **Affordability** – Options to increase energy affordability.
 - **Equitable access** – Programs, opportunities and jobs aligned with our 2030 Zero Carbon Plan.
 - **Community engagement** – Connect and build a deeper relationship with our customers in the communities they reside in, so they can be ambassadors for a clean energy future.



Your role in the 2030 Clean Energy Vision

Powering forward.
Together.





CleanPowerCity.org

Show your support to create a healthier environment and cleaner air:

- Get tips on being energy smart and reducing your emissions.
- Learn how to support the grid.
- Find out more about electric vehicles.
- **Enjoy some free swag!**



@mysmud @SMUDUpdates @mysmud @smud @smud



Zero Carbon customer programs opportunities



Energy efficiency & electrification

Helping customers decarbonize their homes and workplaces by optimizing and managing their electricity use and converting from gas to efficient electric equipment.



Load flexibility & battery storage

Programs and options to participate in building our Virtual Power Plant to help shift and manage loads during times when energy is needed or when excess energy is available.



Driving electric

Incentives, information and special rates to help customers purchase and charge EVs for homes and businesses.



Green pricing

Customers can conveniently satisfy their desire to achieve and maintain a highly renewable or zero carbon power supply.



How do I decarbonize my home?

Energy efficiency & electrification residential programs

Advanced home solutions contractor network



- Seal and insulate
- Circuit upgrade
- Panel upgrade
- Heat pump water heaters
- Heat pump HVAC

Customer information & rebates



- Informational programs
 - Home electricity reports
- SMUD Energy Store
 - Smart thermostats
- Induction cooktops

Retailer partnerships



- Refrigerator recycling
- Air cleaners
- Room air conditioners
- Advanced power strips
- Washers & dryers
- Refrigerator & freezers

smud.org/rebates



How do I decarbonize my business?

Energy efficiency & electrification commercial programs

Self-service approach



smud.org/EES

Express Energy Solutions

Turnkey approach



smud.org/CES

Complete Energy Solutions

Specialized approach



smud.org/Custom

Advanced Commercial Solutions

Property owners/ managers



smud.org/Multifamily

Multifamily retrofit

Builders / Developers



smud.org/IDS
smud.org/SmartHomes

Commercial Integrated Design Solutions
Residential Smart Homes



Residential & commercial programs

Driving electric

Residential



- Drive Electric Program
 - EV information support & PlugStar online tools
 - Ride & Drive events
 - Dealer engagement
- SMUD Charge@Home Program
- Residential EV rate credit
- Sacramento Clean Cars for All Partnership
- Managed Charging Pilot

smud.org/DriveElectric

Commercial



- Commercial EV Program
 - Light, medium & heavy-duty vehicle incentives
 - Level 1, 2 and fast charger incentives
- SMUD eFuelSM advisor & solutions
- Commercial EV Pilot rate

smud.org/DriveElectricBusiness



How can I help my community build a virtual power plant?

Load flexibility & battery storage

Rate following



smud.org/StorageRes

My Energy Optimizer Starter
battery storage

Commercial battery storage

Residential summer peak days



MyEnergyOptimizer.org

My Energy Optimizer Partner
thermostat &
battery storage

Residential year-round



smud.org/StorageRes

My Energy Optimizer Partner+
battery storage

Summer emergency events



smud.org/PeakCorps

Peak Corps
Air conditioner load management

Commercial summer peak days



smud.org/PowerDirect

PowerDirect

Research pilots



EV Managed Charging
PowerMinder
Water Heaters



Residential & commercial programs

Green pricing

Sacramento Shade



smud.org/ShadeTrees

Free trees for residential customers, parks, & communities

Community Solar & Storage



smud.org/Going-Green/Neighborhood-SolarShares

Neighborhood SolarShares

Commercial StorageShares

Residential Greenergy



smud.org/Greenergy

Updated - January 2022

- Standard
- California renewable
- Local renewable

New options - June 2022

- Neighbor
- Climate Advocate

Commercial Greenergy



smud.org/Greenergy

Partner Plus

- 100% California-based carbon free generation

Custom Blend

- Tailored mix based on customer needs

Zero carbon program resources



Program	Email	Phone	Website
Advanced Home Solutions	AdvancedHomeSolutions@smud.org	916-732-5732	smud.org/Rebates
Express Energy Solutions	Express.EnergySolutions@smud.org	916-732-5095	smud.org/EES
Complete Energy Solutions	CES@trccompanies.com	844-529-4084	smud.org/CES
Advanced Commercial Solutions	CustomRetrofit@smud.org	916-732-5095	smud.org/Custom
Integrated Design Solutions	IntegratedDesign@smud.org	916-732-5095	smud.org/IDS
Multifamily Go Electric	multifamily@smud.org	916-732-6359	smud.org/Multifamily
All Electric Smart Homes	rnc@trccompanies.com	916-732-5300	smud.org/SmartHomes
My Energy Optimizer	MyEnergyOptimizer@smud.org	916-732-7400	MyEnergyOptimizer.org
PowerDirect® ADR	powerdirect@smud.org	916-732-6950	smud.org/PowerDirect
Drive Electric	Support@PlugInAmerica.org	877-EV-HELP-1	pluginamerica.org/Sacramento-EV-Support-Program
Charge@Home	evincentives@smud.org	916-732-4800	smud.org/DriveElectric
Commercial Electric Vehicles	commercialev@smud.org	916-732-5095	smud.org/DriveElectricBusiness
Greenergy	greenergy@smud.org	888-742-7683	smud.org/Greenergy
Shade Trees	shadetrees@sactree.com	916-924-8733	smud.org/ShadeTrees

Welcome to the Q&A

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